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St. Bartholomew's Hospital Journal,

APRIL 14th, 1899.

"Æquam memento rebus in arduis
Servare mentem."—*Horace,* Book ii, Ode iii.

WHEN the serious historian of the future comes to deal with our scientific, social, and economic advances made during the nineteenth century, he will find himself confronted by a curious growth that has sprung up alongside these, and made itself especially conspicuous through the closing decades of the last hundred years. This strange product we would like to term exotic, but we dare not; it is terribly indigenous. Habitation we have given it, but not a name; Linnæan nomenclature knows it not. We refer to what we may call the "Anti" mind. Such is our suggested generic name; the species are better recognised,—anti-vivisectionists, anti-vaccinators, anti-Pasteurites, anti-alcoholists, anti-meat-eaters, to mention only the more corporate or organic groups. There are others of less widespread distribution, apt, however, to affect the same soil as either or several of these. For the "Anti" mind illustrates the law of symbiosis to an astounding degree; no hitherto studied fungus more so Indeed, we know some men in whom this phenomenon is so remarkably seen that the scoffers amongst us have been known to sum them up as anti-everything-except-humbug. But the peculiarity of mind which enables a man ("from sheer cussedness" it would almost seem; "from honesty of conviction" we are asked to believe), to run counter to the most generally received and proved principles of human knowledge, often wrested from nature through the toil of ages, is, scoffing apart, of no small interest. And not of interest merely, there's a humour in the thing. We can fancy how Charles Lamb, that prince of humourists, would have loved to add this man also to that motley company he was wont to gather together for the sake of their divers mental twists.

There's a humour in the thing, we said; yes, but there's a danger also. We have opened our gates to these and other strange guests, so that to-day sees us actually discussing matters with that strangest sect of them all, the Christian Scientists, whose weird doctrine is able to deprive its believers, and those in their power, of the simplest and most obvious human assistance. However, this is perhaps but a small danger: Major Lesters and Harold Frederics cannot be every-day patients. But when the "Anti" mind gets hold of our system of party politics, it attacks us in a very weak spot. It has done so, and, for a mere party catch-word to get votes, we find ourselves sacrificing the safety of the country's hygiene, and becoming a laughing-stock among the nations. Our "conscience-clauses," "freedom of the subject," and what not, are very fine things to talk about, but not so safe for basing our public health upon.

Doubtless the "Anti" mind, like the poor and the rickets, will be always with us; there's a perversity about the mental attitude we are discussing that bespeaks it born for an existence co-equal in time with that of human nature itself. Yet the fantastic shapes so often adopted in the course of its life-history should, one would suppose, appeal to its reason at times. If a man finds, with Dr. Johnson, that it

is "easier to abstain than be abstemious," he is wise if he abstains; but to proceed forthwith to vociferate himself needlessly hoarse by declaring that alcohol is "distilled damnation," is a confusion of the man with the means. And if he proceeds to contribute to a temperance hospital in the firm belief that alcohol has no uses whatever in proper hands, he does but encourage the physician to handicap himself in his treatment of his patients. If a person discovers that by avoiding butcher's meat he "saves his toe from shoots" and better fits himself for his life's duties, let him eschew the fleshpot accordingly; but to announce as the result that meat is the cause of all the physical ills and half the evil passions that flesh is heir to, and that nuts and figs should be the universal diet of mankind, is bad logic and very silly. If a lady has a poodle and she loves him very well, as a lady with a poodle is very apt to do, it does not require much argument to convince her that the muzzling order is an iniquity or, indeed, that rabies is a disease existing solely in the doctor's imagination; but for a journalist of repute to disseminate her conclusions for purposes of popularity is a pernicious practice, even though pecuniarily satisfactory. We were *going* to say, to conclude, that if anyone holds that vivisection involves a false ethical principle, let him argue the question along that line, and not upon the error still adhered to, that the utility of this method of research has never been proved, when the victories of serumtherapy and bacteriology are just now so evident. But the following extract from the *British Medical Journal* of April 8 stayed our pen on its obviously errant course.

> I claim, then, to have shown that the poisons of variola, vaccinia, and syphilis are not and cannot be the product of a bacillus; that Loeffler's bacillus is not a constant, and therefore cannot be the essential, element for the production of an attack of diphtheria; that the essential element in the case of gonorrhœa is not the gonococcus; that the essential element in the case of typhoid is not the bacillus typhosus; that this bacillus cannot live but a few hours in ordinary sewage; that not a single specimen of this bacillus has ever been discovered in sewer air, and hence that typhoid fever cannot be attributed to it, because of its contained germs; that, in the cases of the epidemics at Maidstone and King's Lynn, there exists no proof of the contamination of the water by typhoidal matter, as indicated by the presence of the bacillus typhosus; that there is no evidence worthy of the name that tuberculosis is due to the ravages of the tubercle bacillus; that the comma bacillus cannot be regarded as the essential element in the production of an attack of cholera, and that the same can be said of the plague and its special bacillus; that the so-called pathogenic micro-organisms are constantly found under conditions consistent with perfect health, and that in more than one notable instance they not only appear to, but actually do, exert a beneficent influence.
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> All these things—which are facts, not opinions, capable of demonstration and proof—go to show that the modern doctrine of bacteriology is a gigantic mistake; that we are already at the parting of the ways, and that it is safe to predict that, ere long, it will come to be recognised that these various bacilli play a beneficent *rôle* in the economy of Nature.

Then we rubbed our eyes, and pinched ourselves, to make quite sure we were awake and not dozing. Satisfied as to this, we turned to the date of issue of the periodical containing this petard to our fond delusions, but it really *was* the current number, and the 1899 was *anno domini* too, we could scarcely help supposing. So we laid it aside with a groan for the cheated mortals that we are, and thought of the capital the "Anti" mind would make out of Dr. Bantock. Then we remembered that we could "draw breath freelier outside," so we withdrew into the open air.

Illustrative Cases of Granular Kidney.

By SAMUEL WEST, M.D., F.R.C.P.

A REAL knowledge of any disease can only be acquired in one way—by the study of cases; at the bedside if possible, if not in carefully written records; best of all, in both these ways. Especially is this true of a disease of protean character, such as granular kidney. The following cases will illustrate the diverse forms which this disease may assume, and the clinical difficulties which arise in consequence:

CASE I.—*Granular kidney, appearing as subacute parenchymatous nephritis, but presented all the signs of advanced granular kidney; extreme ascites, with peculiar fluctuation in intercostal spaces; frequent paracentesis; death from asthenia; post-mortem.*

Charlotte H—, aged 31, a housemaid, was admitted into the Royal Free Hospital on January 28th, 1889.

She was in good health until five months ago, when she first began to complain of pain in the back, which came on without obvious cause, and has continued more or less ever since. There had been amenorrhœa for the same period. Two months ago she first had swelling of the ankles, worse at night, and the swelling gradually extended up the legs; but during the last month there had been swelling also of the abdomen and face, especially round the eyes, and most marked in the morning.

During the last month she had passed more urine than normal.

Since the commencement of her illness she had got paler, lost flesh, and had felt very much weaker; and during the last two or three months her sight had been impaired. She described a darkness which came before her eyes, and prevented her from reading or doing fine work. During the last twelve months she had occasionally had attacks of epistaxis.

The appetite had been good, the bowels regular; she had slept well, and had no sickness or headache, but her breath had been short on exertion, and she had suffered sometimes from beating at the heart. But this had been so for some years, and was not much worse since the illness began.

She was at work until January 23rd.

The patient was a well-developed young woman, with a characteristic renal appearance; the face white and puffy,

general œdema of the legs and body, with the exception of the arms and hands.

The pulse 100, regular, of very high tension, and the arteries were much thickened.

The urine was acid, 1013, containing a third of albumen and a number of hyaline and granular casts.

The area of cardiac dulness was somewhat enlarged, the first sound a little prolonged at the apex, the second accentuated at the base, especially over the aorta, but no murmurs.

The abdomen was distended, containing fluid, and measuring 39½ inches round.

Dulness extended on the right side of the chest some distance up the back, but was probably in great part due to the displacement upwards of the liver, though in part also to the presence of fluid.

Both eyes showed well-marked albuminuric retinitis; the optic discs blurred and indistinct, some large, irregular, retinal hæmorrhages and white patches near the yellow spot.

The patient evidently was suffering from a subacute attack of nephritis; but the character of the urine, the hardness of the artery, and the changes in the discs showed that there was something more than chronic parenchymatous nephritis to deal with.

The amount of dropsy and the history of the onset of the affection suggested that a great deal of the anasarca was of cardiac origin.

The chief complaint of the patient was of the swelling, of pain in the back, and of failing vision.

In the course of the next few days the fluid on the right side of the chest increased, and the dulness reached up to the second rib. The intercostal spaces were wide and bulging.

It was decided to tap the right pleura; an exploring needle was inserted, and serous fluid was easily obtained. A trocar was then inserted in the sixth space in the mid-axillary line, and the fluid withdrawn by syphonage. It flowed readily; 150 ozs., 200 ozs., and 300 ozs., and ultimately 505 ozs. were withdrawn. It was then found that this surprising result was due to the fact that the abdomen had been emptied through the puncture in the pleura. This was very extraordinary, because the needle had been inserted in the usual place and passed only a very short distance through the chest walls, and it seemed difficult to understand how, if the diaphragm had been penetrated, the liver could have been avoided.

After the tapping the right side was found to have fallen in considerably, so that the ribs were close together and the bulging had disappeared. The liver could now be felt in its usual place, somewhat below the ribs. The fluid withdrawn was of the usual character, and contained about one sixth of albumen and 0·05 per cent. of urea.

The case ran a very slow course. The patient was in the hospital seven months, getting gradually weaker and more dropsical. The chief feature of the case was the recurrent ascites, which required frequent tapping about once a fortnight, so that she was tapped about fourteen or fifteen times. The patient suffered frequently with severe headaches and from occasional attacks of epistaxis and vomiting.

The only special event to note was that on April 15th the patient had a slight attack of pericarditis, but this subsided without special symptoms. The temperature was normal throughout. The pulse tension was interesting on account of its constant variation, so that it was hardly the same on two consecutive days.

The patient died of exhaustion on August 6th, after having been in the hospital nearly seven months.

The albuminuric retinitis slowly progressed, but was throughout more marked in the left eye than in the right.

In the middle of March there was extreme optic neuritis of the left eye, so that the disc could hardly be made out, and round about it were several small hæmorrhages. The central part of the retina also was a good deal blurred, but the white patches were not so numerous as in the opposite eye.

The right eye was not so much affected, but there were numerous hæmorrhages scattered about over the retina, and many very characteristic white patches.

The vision was as follows:—Right eye: J. $\frac{6}{12}$ at 20 feet, with −7·5 D.; type 8 at 11 inches. Left eye: J. $\frac{6}{36}$ at 20 feet, with −5 D.; type 10 at 12 inches. There was no marked diminution of the field of vision.

The urine remained throughout of much the same character; it averaged about 70 to 80 ounces daily; the specific gravity 1010, contained about one third of albumen and about 1·5 per cent. of urea with numerous casts, chiefly granular, but occasionally epithelial. Even to the last the urine retained these characters without change.

The chief peculiarity of the case was the ascites, which was out of all proportion to the general anasarca, so that the abdomen required to be tapped, as has already been stated, about every fortnight. The girth of the abdomen was considerable—40 to 43 inches,—and the amount of fluid removed very large; thus, on the first paracentesis it was 25¼ pints, and on other occasions it measured 26, 27, and even on one occasion as many as 33 pints.

The thoracic organs were of course greatly displaced, so that the heart was pushed up to the second rib, and dulness on the right side reached as far as the second rib in front. This was thought to indicate a large pleuritic effusion on the right side; but when the pleura was tapped on the first occasion the abdomen was emptied; and with the return of ascites, the dulness in the chest became the same and no other evidence of fluid within the chest was obtained.

After the first paracentesis the liver could be felt in its usual place below the ribs, but on subsequent occasions it was not to be detected at all.

The next point of interest was the curious fluctuation that was obtained on several occasions between the intercostal spaces and the abdomen. The lower intercostal spaces were all dilated, and bulging, and they felt tense and elastic.

Very distinct fluctuation could be obtained in the intercostal spaces between the sixth in front and the tenth behind, on the same level that is to say; evident though much less distinct fluctuation could be obtained in the lower intercostal spaces behind by percussing the abdomen This is a very remarkable condition, and one which I have never seen in any form of pleuritic effusion, or indeed in any other case of ascites

On March 15th, when paracentesis was performed and 240 ounces of fluid removed, the intra-abdominal pressure was +7 inches of water, and what was curious was that, although the fluid was removed from the abdomen, no change was made in the lines of dulness on the right side of the chest which reached up to the third rib; but the bulging of the lower intercostal spaces disappeared, and there was, after the operation, marked inspiratory recession of those spaces.

As the fluid reaccumulated, the symptoms described all returned more or less according to the distension of the abdomen, and disappeared with each paracentesis.

Although the case was regarded throughout as one of granular kidney, still it was thought there must have been some other supplementary condition to account for the predominance of ascites. Cirrhosis was thought to be a possibility, but there was no evidence of it, for the veins of the abdomen were not distended, and there was no history of alcoholism.

Although rare, it is well known that in general dropsy the stress of the effusion may fall on one or other of the serous cavities.

As in this case it seemed to fall upon the peritoneum, so in another case I can recall, I remember it fell chiefly upon the right pleura, which had on several occasions to be tapped. This was a case of morbus cordis, and though the patient ultimately recovered and lost all the general œdema. the fluid persisted in the right side of the chest for some time, and required paracentesis two or three times after all general signs of dropsy had disappeared. In the end this disappeared also, and the patient recovered so far as the morbus cordis permitted.

The patient died, as stated, on the 7th August, having been troubled during the last few days with frequent diarrhœa and vomiting, but there were no other signs of uræmia.

On the *post-mortem examination* there was some general anasarca, and the abdomen was found greatly distended with fluid.

The diaphragm on the right side reached up to the third rib.

The spot where the paracentesis was made on the first occasion was in the sixth space in the mid-axilla, and in this line the diaphragm reached well up into the fourth space.

There was no adhesion of the lung or pleura in this part, and the lung was collapsed, but not diseased; there was no fluid actually in the pleura, or any signs of there having been any there.

The liver was normal, except for one or two little streaks of capsular thickening.

The heart was greatly hypertrophied, and weighed 18 ounces; there was no valvular disease, but there were a few firm pericardial adhesions here and there.

The kidneys were very granular, but irregularly so; in some parts the whole of the cortex seemed to have been completely destroyed; in the other parts there were coarse and fine granulations, and the cortex in these places was very considerably reduced.

This case illustrates an important clinical fact, viz. that in adults granular kidney not unfrequently presents itself under the guise of acute nephritis; in other words, that what appears to be a first attack of acute parenchymatous nephritis is really but an intercurrent acute nephritis in the course of chronic disease, *i.e.* granular kidney. Hence it follows that if in a case of granular kidney a history of antecedent acute nephritis be obtained, it must not be assumed that the acute nephritis has caused the interstitial nephritis, for the relation between the two conditions may very probably be the exact converse, viz. that the patient had an attack of acute nephritis, because the kidneys were already diseased, *i.e.* granular. The importance of this conclusion from a pathological point of view is obvious.

CASE II.—*Granular kidney—First grave symptom angina—Occasional fits for three years before—Rash, bullæ, and erythema—Hæmorrhage from bowel—Restlessness, noisy delirium, coma, death, post-mortem. Remarks.*

William W—, aged 44, was admitted into the hospital on account of attacks of dyspnœa, which seized him suddenly at night. He gave this history:

He had been a maker of lead pipes for twenty years. During the last fifteen years he had suffered three times from lead colic, being ill for about a week. The last attack was three years ago. One year ago he had his first attack of gout, and he had had two or three slight attacks since. One month ago he began to notice that he was passing rather more water, having to rise five or six times during the night.

In other respects he was well until one month ago (September 30th), when, having gone to bed well, as he thought, he was awoke in the middle of the night with a violent attack of dyspnœa; he awoke fighting for breath, and continued to suffer for half an hour. He was able to go to his work next day, and felt well for a fortnight, when he had a similar attack at night; and again, a fortnight later, he had a third attack, for which he came to the hospital, and was admitted.

The patient was a well-developed, strong-looking man, except that he appeared rather pale, and his hands were a little tremulous. There was a well-marked blue line on his gums, both on the upper and lower jaw. The pulse was 92, a little rapid, and of high tension; the artery considerably thickened, and rather tortuous.

The heart's apex was in the normal place, the cardiac dulness not obviously increased, and the sounds normal.

The urine was clear, 1008 specific gravity, contained a cloud of albumen, and about 1 per cent. of urea.

There was a little rhonchus over the chest, and a little crepitation at both bases. There was also some grating in the joints of both great toes.

Examination of the eyes showed early albuminuric retinitis in the form of small white patches round the yellow spot. There was one hæmorrhage not far from the disc in both eyes.

The case was evidently one of granular kidney, and the attacks of dyspnœa cardiac in origin.

The patient improved, and nothing special occurred until November 18th, when the patient, who had not been feeling very well the day before, was seized during the night with a violent attack of cardiac pain, but without any shortness of breath. This lasted some time, and did not completely pass off for the whole of the next day. The following night he was attacked with a similar spasm. Three days later an attack of gout in both great toes showed itself.

These attacks were, no doubt, cardiac in origin, and of the nature of angina. The occurrence of gout a few days later throws a light upon what is sometimes called "gout of the heart," which, no doubt, in the majority of cases is anginal.

The gout rapidly subsided under the use of salicylate of soda and iodide of potassium.

Nothing further happened until December 7th, when the patient was attacked by a fit of an ordinary epileptic character, which lasted about four minutes. Inquiry then elicited the fact that he had been occasionally subject to fits at irregular intervals during the last three years, and that the last fit occurred fourteen days before admission.

For the last few days the patient had been complaining of pain over the dorsum of the right foot, and on December 7th some small bullæ were found there containing a blood-stained fluid; these were incised and dressed with boracic acid ointment.

On the 13th the patient seemed to be weaker and to be a little wandering.

On the 14th he began to be sick, and vomited from time to time.

On the 17th his tongue got dry, and he complained of great thirst. That evening he had another fit.

At the end of the month the cardiac dulness was found to be increased and the apex outside the nipple line, showing that some dilatation of the left ventricle had occurred.

On January 2nd and 7th he had other fits.

On January 14th the patient began to complain of general irritation over the whole body, which was followed in a few days by an erythematous eruption. The temperature now began to rise. Bullæ continued to form upon the feet, and had been opened and dressed in the way described.

On January 18th the patient complained again of great thirst and of drowsiness. The albumen was somewhat increased, and the urea continued, as it had been for some time, at 1·4 per cent.

On January 19th the patient became very restless and more drowsy; he passed water in bed, and began to suffer from diarrhœa. That evening he passed a large blood-clot, and the next day a considerable amount of blood from the bowels, which, apparently, was not due to piles. The temperature, which had gradually risen to between 102° and 103°, now began to fall.

On January 22nd the patient was very feeble, passed but little water (19 ozs. in the twenty-four hours), became delirious and noisy for a time, and subsequently passed into a condition of coma, and died unconscious on the 23rd.

There had been no change in the character of the urine throughout, except one, which was rather an improvement, for on admission the urea was 1 per cent., but during the whole of the later stages of his illness it had reached 1·4 per cent.; the quantity of urine averaged between 50 ozs. and 60 ozs. daily, the specific gravity was 1008 to 1010, and the amount of albumen about an eighth. It was only during the last two days of life that the quantity of urine fell much, and even then averaged about 18 to 20 ozs. The general erythema, which began on the 14th, and spread all over the body, caused a great deal of irritation and distress. It presented no special characters, but was of the ordinary kind, and attended with a fair amount of fine desquamation.

The usual treatment was adopted throughout, but was of little permanent benefit.

The *post-mortem* showed nothing except the ordinary symptoms of granular kidney. The kidneys were small and contracted, granular on the surface, with small cysts; they weighed only 7 ozs. together.

The stomach and small intestines were congested, but showed no evidence of the source of hæmorrhage. The heart was a good deal hypertrophied, and weighed 20 ozs. The liver was rather large (4½ lbs.), but otherwise normal.

The points of interest in the case are the following:

1. The fits, which had developed during the last three years, were of an ordinary epileptic character of only occasional occurrence, and not very severe. So little importance was attached to them that they did not transpire in the history until the occurrence of the first fit in the hospital caused special inquiry to be made. Granular kidney as a

cause of epileptic fits in the adult is not recognised; yet not infrequently they are the first grave sign of illness.

2. With the exception of these fits, the patient thought himself to be in good health until the attack of dyspnœa developed a month before admission.

3. The attack of dyspnœa was evidently cardiac in origin, and of the nature of angina; it had nothing of the asthmatic character about it, and could not properly be called asthma.

4. General rashes are rare. The rash in this case was of the kind that is common in the later stages of granular kidney, viz. an erythema, and, except for the irritation it caused and its grave significance, it was not serious in itself. The bullous eruption which occurred upon the feet is very unusual, and in this case the contents were blood-stained, though the erythema itself was not hæmorrhagic.

The rash was probably of a septic or toxic character, and this is confirmed by the rise of temperature which accompanied it, for the tendency in the last stages of granular kidney is for the temperature to be subnormal—often remarkably so.

5. The later symptoms could in no way be connected with any obvious change in the urine. There was more albumen and less urea on the patient's admission than subsequently, and until the last two days of life elimination by the kidneys seemed to be satisfactory. Though the patient had had fits previously, and died comatose, nothing of the nature of uræmic fits occurred.

6. The albuminuric retinitis, though slight, was characteristic. The hæmorrhages which were noticed on admission were slowly absorbed, and no fresh ones occurred, but the white spots remained as they were.

It is interesting to note that the albuminuric retinitis was what would be called "early," though the granular kidney was in its last stages. The patient complained of no defect of sight; the field of vision was taken, and found normal in both eyes.

7. The association with granular kidney of both lead-poisoning and gout raises the question of the relation of these lesions to each other.

The man had been working with lead for twenty years; the gout had only developed during the last few months, so that it was obviously subsequent to the granular kidney. Except for the lead-line and the history of one or two slight attacks of colic, the evidence of lead-poisoning was not marked, and the working with metallic lead does not usually lead to lead-poisoning; so that in this case the development of granular kidney was probably quite independent of the lead. In many cases it is not so much that gout and lead-poisoning cause granular kidney as that patients suffer from gout and lead-poisoning because their kidneys are already granular and elimination defective.

8. Hæmorrhage from the bowel is of very rare occurrence, although the general tendency to bleeding is so marked a feature.

9. Gradual cardiac failure is common, as shown by shortness of the breath, œdema of the feet, &c; yet for angina to be the first symptom is rare.

10. This case illustrates an important fact in the clinical history of granular kidney, the suddenness with which grave symptoms often develop in the midst of apparent health, for this patient thought himself well, or, at any rate, in his usual health, up to two months before his death; yet from the time the angina developed his fate was sealed.

Some Rectal Diseases.

By F. C. WALLIS, M.B., F.R.C.S., Surgeon to the Metropolitan Hospital and Assistant Surgeon to Charing Cross and St. Mark's Hospitals.

VI. PROLAPSUS ANI AND PROCIDENTIA RECTI.

THE permanent protrusion of the bowel beyond the anal orifice is designated by one of the terms at the head of this paper. If the protrusion is slight in character, and consists only of mucous membrane, it is called a *prolapsus*; if, on the other hand, it is more extensive, and involves the other tunics of the bowel—procidentia recti is the name given to it.

Prolapsus ani is a common trouble in small children, and anyone who has held a resident post at a large hospital will have seen many cases.

Causes in children.—Among hospital patients the commonest cause is in the first place bad or improper food. This by its action on the intestine produces diarrhœa and great straining, which latter is the cause of the prolapse. Other causes are polypus and ascarides, phimosis, and vesical calculus.

The custom of sitting a child on a commode, and letting it sit and strain, quite irrespective of any desire the child may have is also a not infrequent cause of prolapse even in the better-class patients. When prolapse in children is due to the last-named cause, the sphincters are generally much more relaxed and flaccid than when any other cause produces it. The reason of this is that it is a mere chronic production, and there being no acute symptoms to call attention to any local condition, it is eventually discovered by accident.

Causes in adults.—Before going into these, it will be as well to state that the condition is not a common one in adult life, and is oftener met with in women than men.

Internal hæmorrhoids are a common cause, perhaps the most common, of prolapsus others are polypus, stricture, enlarged prostate, calculus, and, in fact, anything which

necessitates great straining of these parts, including parturition, and the occasional evils which attend it.

The *appearance* of the prolapsus will, *in children*, depend upon the cause. If it has been brought about by any sudden or violent straining, the prolapsed mucous membrane will be gripped by the sphincter, and soon becomes livid in colour, and may *rarely* become gangrenous, or, short of this, may be so much damaged that more or less ulceration will occur.

When the cause is a chronic one, as mentioned above, the mucous membrane is normal in colour, as the sphincters being lax do not in any way grip it. In these cases the mucous membrane is apt to suffer superficially, but no serious damage is done to it.

The *treatment* of prolapse in children depends upon the conditions of its production. If this is a recent affair, and is caught by the contracted sphincter, it must be reduced. This is easily done by placing the child prone on the nurse's lap, then applying firm pressure for a minute or so, after which a little manipulation with the fingers previously vaselined generally brings about the desired result.

The bowels should only act when the child is lying down (or standing up as suggested by some, although this would seem a very awkward performance), and if the prolapse still occurs, it should, each time after being cleaned with cold water, have a plentiful application of some astringent lotion, such as alum gr. x to ℥j, and then the bowel should be returned, and a pad and perinæal bandage applied. In bad cases it is better that the child shall be kept in bed for a time, and encouraged to lie on its face.

Constitutional treatment must be carefully carried out; the intestine should be treated by judicious doses of Hydr. c̄ Cret. and rhubarb, and the diet carefully looked after. Cod-liver oil is an excellent thing in these cases, not only for its nutritive properties, but because it helps materially to prevent constipation, which is to be carefully avoided.

Under such treatment as this most cases get well, although sometimes rather slowly. If after a fair trial the prolapsus still occurs, some more energetic form of treatment is necessary.

The free application of strong nitric acid to the mucous membrane has been recommended, and is said to be beneficial. I have had no experience of it, but I cannot say that it appears to me a satisfactory method of dealing with this trouble, and I should not propose to try it. The actual cautery applied in the manner which will be described directly, is quite effective; it does relatively such a small amount of damage to the mucous membrane, and is not, when properly carried out, followed by any suggestion of stricture.

In experienced hands the best surgery would be to remove the prolapsed mucous membrane in the method suggested by Whitehead, bringing down the cut edge and the external sphincter, and sewing it to this. But here again I would warn anyone who is not in constant operative practice that this is an operation which must not be lightly undertaken. It was only recently that a woman under forty years of age came to me at St. Mark's for a prolapse, which had been produced by an operation for piles, which she said had been done by the house surgeon in a provincial hospital for "Whitehead's piles" (*sic*). The *whole* of the external, and a large part of the internal sphincter had been removed, and the woman had permanent incontinence. Hard lines on the surgeon whose name and operation had both been "taken in vain," and the worst of disasters for the patient!

Procidentia recti usually occurs in adult life, and three varieties are described, viz. partial, complete, and intussuscepted. The treatment depends to a great extent upon the variety.

Causes other than those already mentioned for prolapsus are the lax condition of the supporting pelvic muscles, viz. the levatores ani, and a long meso-rectum.

Symptoms are straining at the time of evacuation, with protrusion of the bowel. This can at first be reduced, but gradually, as the tenacity of the sphincter wears out, the reduction is less permanent, and then the procidentia comes down when the patient walks about, and gradually becomes a permanent thing.

The ordinary disadvantages are obvious; in addition, however, to these, two others of importance should be mentioned, one being the tendency of the prolapse to get worse, the other quite remote, certainly, but most serious if it occurs, the rupture of the procidentia with extrusion of the small intestine.

In the first variety partial procidentia, which is in most cases easily reduced, may be recognised by the longitudinal lines radiating from the anal margin along the bowel, showing a marked difference to the second or complete variety where the lines are circular.

The third variety may be divided into two classes, depending upon the intussuscepted part remaining inside the bowel, or protruding outside. In the first or partial form the protruded bowel will not include any peritoneum, if the prolapse is under three and a half inches anteriorly, this being the lower limit of the peritoneum here. In the other two the peritoneum is certain to be involved in the procidentia—a fact to be borne in mind when considering the plan of treatment. The treatment of these cases is either palliative or radical.

There is not a great deal to be said for the palliative method, and it can only be employed for the slighter forms. Ball and Cooper speak well of a conical vulcanite pessary with a narrow neck; this is said to keep the prolapse up, and to have a stimulating effect on the sphincter. If it does not prove a source of irritation and can be borne by the patient, the mechanical support is no doubt helpful. This method is credited with having effected a complete

cure in some cases, but it is a little difficult to see how this can be brought about.

Another form of treatment which is written about, but not as far as one can make out with any strong desire of advocacy, is the submucous injection of various irritating fluids, the aim being to procure inflammatory matting of the various coats of the bowel, and by this means preventing the procidentia. Ergot, nux vomica, and carbolic acid have all been tried, and also many other fluids. Ergot seems to have been the only one with which any success has been achieved. The disadvantage of using carbolic acid and the like in this manner is that inflammatory action may end in suppuration, and then not cure the procidentia. The more one thinks of this method, the less does it seem desirable, except in such cases where it is urgent that something should be done, and yet from some cause or another any regular operation cannot be undertaken.

The operations which have been from time to time undertaken for the cure of this complaint are fairly numerous, and all more or less ingenious.

It does not come within the scope of this paper to detail all of these, but they will be briefly mentioned, and those more in favour of the present day surgery will be more fully discussed.

Kleberg describes a difficult and elaborate operation for the removal of the procidentia by means of *elastic ligatures*.

Reduction of the calibre of the rectum, and the production of a narrowed muscular ring is aimed at in an operation carried out by F. Lange, of New York.

Verneuil's operation raises the bowel and attaches it to the sacrum.

Macleod, of Calcutta, describes an operation for attaching the upper part of the rectum to the wall of the abdomen, and although the operation is one which appeals to the surgeon in many ways, it would almost seem that the method of Allingham's is much simpler, and just as effective. Allingham makes a small incision through the anterior wall on the left side just above the outer third of Poupart's ligament, pulls the rectum up to straighten it, and then fixes it in this position by passing silk ligatures through the mesentery, and fastening this to the abdominal wall.

Roberts, of Philadelphia, claims success by an operation in which he removes a large V-shaped piece from the posterior wall of the rectum and skin including the sphincter, and then drains. Treves and Mikulicz have both devised operations which in the main are similar, and the object is to remove the whole procidentia, and then to bring the cut edge of the mucous membrane above to the skin margin below, much after the method of Whitehead's operation.

Billroth and Nicoladini have recorded successful cases of the same sort. The patient being placed in the lithotomy position and the pelvis well raised, the inner tube of the procidentia is pulled down by forceps to its full extent. The mucous membrane is cut through at the muco-cutaneous margin and turned back; next the inner tube is divided circularly at a level with the anal margin, care being taken to push back any small intestine that may intervene. The serous coats are then united, and the mucous and muscular coats brought down and sewn to the anal margin. If this is done by small pieces at a time, no ligatures are necessary, and the whole of the circumference can be sutured with very little loss of blood.

Some such operation as the above seems to be the best when any operation is advisable.

The *actual cautery* is in a very large percentage of cases undoubtedly the most effective and least dangerous method of treatment which can be adopted in all forms of prolapse. This treatment was first recommended by Van Buren.

The intestine is pulled down to its fullest extent, and a full-sized Paquelin's metal cautery, at a dull-red heat, makes four longitudinal stripes, deepening as they come near the base; the intestine is then well vaselined and returned. If the external sphincter is relaxed, a fine-pointed cautery is stabbed into it at various points. The patient keeps in bed for some weeks, three to four, and the bowels are confined for seven to eight days; the patient is not allowed to sit up to have them opened.

The results of this treatment are so very good, that it would seem right always to try it first of all before proceeding to any of the more severe methods mentioned above. The pain is very slight after the operation, especially if the sphincter or skin around is not burnt. Except in severe cases, one operation usually succeeds, but when this is not so there is no objection to repeating the cauterisation.

(*To be continued.*)

Tuberculin.

A Paper read before the Abernethian Society on March 9th, 1899,

By M. W. COLEMAN, M.B.

MR. PRESIDENT AND GENTLEMEN,—No subject at the present time occupies more attention than that of tuberculosis, especially in regard to the "open-air treatment of phthisis." Any agent, therefore, which could with advantage be used with this for curative purposes, or would aid the early diagnosis of this disease, should not fail to be of interest. Both of these properties have by various authorities been claimed for tuberculin, and it is my object in reading this paper to attempt to set before you how this subject stands at the present moment, and also to give my own very limited experience of this material which I was enabled to obtain whilst house physician to Dr. Heron at the City of London Chest Hospital.

As I think it is essential in using a substance of this kind that one should have a clear idea of its nature, I trust you will excuse me if I recall to your memory as briefly as I may Koch's work in connection with this subject.

Soon after his discovery of the tubercle bacillus he commenced his

researches to find some means of combating its effects. He first of all conducted his experiments on cultures, and has drawn up a long list of substances which he found to have the power of arresting the growth of the bacilli. None of these, however, when applied to tuberculous animals, were found to have any effect.

Continuing his researches, however, he at length made the following discovery:—He found that when a healthy guinea-pig and a tuberculous one are both inoculated with a pure culture of tubercle bacilli, the effect on the two animals is different. In a healthy guinea-pig, in from ten to fourteen days after the inoculation a hard nodule is formed. This soon opens, leaving an ulcerating spot, which persists until the death of the animal. On the other hand, if a tuberculous guinea-pig be inoculated, no nodule is formed; but on the first or second day after the operation the area around the point of inoculation becomes hard and dark-coloured; a small patch of epidermis is finally thrown off, leaving a flat ulcerating surface. This ulcer, however, usually quickly and completely heals. It is seen, therefore, that in the one case the ulcer persists until death, whilst in the other it usually heals. He next found that it was not necessary to inject living tubercle bacilli, but that dead ones act also in the same degree.

Experiments made with injections of dead tubercle bacilli suspended in water proved the following points:

1. That they may be injected under the skin of healthy guinea-pigs, even in large quantities, without producing anything but local suppuration.

2. Tuberculous guinea-pigs are killed by injection of much smaller quantities of such cultures, the time being from six to twenty-eight hours, according to the dose.

3. If, on the other hand, the suspended matter be still more diluted, so that it is scarcely turbid, and this be injected into a guinea-pig already rendered tuberculous by inoculation of living cultures, the animal remains alive; and if the injections be continued at intervals of one or two days, a noticeable improvement in their condition soon sets in. The ulcer at the point of the original inoculation becomes smaller, and finally cicatrises. This never happens without such treatment. The swollen lymphatic glands become smaller, nutrition improves, and the progress of the disease is arrested if it is not already so far advanced that the animal dies of debility.

Before this material could be put to any practical use there was one great obstacle to be overcome, namely, the abscesses which were set up at the points of inoculation. These were found to be caused by the dead bodies of the tubercle bacilli remaining unabsorbed in the tissues into which they had been injected. To overcome this, attempts were made to extract the active principle from the bacilli, and this was finally accomplished by the help of a 40 per cent. to 50 per cent. solution of glycerine. This glycerine extract of pure cultivations of tubercle bacilli is filtered through porous porcelain, and forms what is known as the "old tuberculin."

Although the tuberculin that Koch had thus produced was proved to have the power of conferring immunity to the tubercular poison, it was found in animals that it did not confer immunity when the living bacilli themselves were injected. This led Koch to the conclusion that immunity against tuberculosis is not single, as formerly thought, but is at least of two kinds. There is an immunity against the bacterial products and an immunity against the bacteria themselves. Thus an individual may become immune to the tubercular poison and the lesion heal, but such a person is not proof against a fresh infection. It was an immunity of this first kind only, namely, against the tuberculous poison, that he was led to believe his old tuberculin conferred. He therefore continued his researches, with the object of obtaining a material which would also confer immunity to a fresh infection.

The results of these were published in the *Deutsche Medicinische Wochenschrift* for April 1st, 1897, under the head of "The New Tuberculin." Of this there are three varieties.

The first—T.A., as it is called, or "tuberculin alkaline"—is obtained by acting on the tubercle bacilli for several days with a 10 per cent. soda solution. Almost all the bacilli are then removed by filtration, and the filtrate is injected in ascending doses. The few remaining bacilli were at first absorbed, and the animal reacted in a manner exactly similar to that following injections of the old tuberculin, except that the stage of fever was longer. Before immunity was obtained the dose reached an amount that invariably caused an abscess, which interfered with the procedure.

Koch next attempted to so act upon the bacilli mechanically that their bodies themselves might be absorbed. This he succeeded in doing by pulverising dried cultures in small amounts with a pestle and mortar. This was then mixed with distilled water and centrifugalised. The upper layer of the fluid thus obtained he called T. O. ("tuberculin obera"). This fluid he found, on injection, to act in a similar way to the old tuberculin, but it possessed very little immunising power.

The sediment after this T.O. had been removed was again dried and pulverised, distilled water added, and again centrifugalised. This process was repeated until but little residue remained, the bulk of the culture having been rendered soluble. The several fluids thus obtained were added together, and 20 per cent. glycerine added to preserve it. This material he called T.R. ("tuberculin remainder"). T.R. is the preparation recommended for clinical use, and is practically what is meant when one speaks of the "new tuberculin."

Koch made a long series of experiments with this material, and from them was led to believe that it possessed strong immunising powers, the protection being both against the bacterial products and the bacteria themselves.

We will now consider the local and general phenomena which follow the injection of this material. These are very similar both with the old and new tuberculin, except that in the latter they are very much less pronounced. The local phenomena are best observed in a case of lupus. Under this treatment the lupus spots begin to swell and redden, and this may reach a high degree with the old tuberculin, but is always slight with the new. The swelling slowly again subsides, and the crusts covering the lupus spots tend to separate and fall off, leaving a clear red cicatrix behind.

In phthisis early injections are followed by a slight increase in crepitant râles and increased expectoration. After a few injections in favourable cases these disappear, and the cough and expectoration diminish, and ultimately cease. This same local activity is seen in other tuberculous conditions; for instance, in diseases of joints. Under this treatment the joint at first becomes swollen, red, and tender.

Occasionally this activity gives rise to signs in parts which before appeared healthy, but these, as treatment is continued, usually quickly disappear. Crepitations may thus appear in the opposite apex to that known to be affected. Dr. McCall Anderson quotes a case of lupus; the second injection lighted up pain and inflammation in the right elbow-joint. This disappeared again in a few days. Besides this activity in the tuberculous area, there is also a slight reaction set up at the point of inoculation. A few hours after the injection a small tender swelling forms, but this has usually quite subsided within twenty-four hours.

The general phenomena consist, firstly, of a rapid rise of temperature, sometimes up to 105°, or even higher. This occurs when the dose has reached a certain strength, which varies with the individual. It usually occurs about two hours after the injection, and lasts about six hours. Occasionally this rise of temperature is preceded by a rigor; it is frequently followed by slight headache and pain in the back. Sometimes these are severe, and marked nervous symptoms, such as persistent vomiting or delirium, have occurred. These severe reactions are, however, hardly ever seen with the new tuberculin, though they were fairly common with the old. As the treatment continues the patient ceases to react to doses which at first produced a marked reaction, and at the end of treatment 20 mgrs. of T.R. may have no effect upon a patient in whom, at the commencement, a dose of 1 mgr. would send the temperature up to 105°. The gradual immunity which is established to this toxin is one of the most striking phenomena noticed with this treatment.

Although the above are the only phenomena usually met with, certain observers have noted with the old tuberculin other and more serious effects. Small tuberculous nodules have been seen to arise on the tongue and larynx during this treatment, and the statement that these are simply the lighting up of activity around bacilli already in these situations has not been proved. It was Professor Virchow, however, who brought forward the most serious objections to this old tuberculin. His views were based on the result of twenty-one necropsies which were made on patients who died whilst under this treatment. Of these twenty-one cases, sixteen were pulmonary. The conclusions he came to were—that, firstly, he was unable to make out any changes indicative of cure in the tubercles themselves, these for the most part being well formed. Of the pulmonary cases, the large majority exhibited recent changes of great extent. Caseous consolidation was sometimes most extensive, and a condition much like septic pneumonia was met with in some cases. In one case, during life no trace of consolidation of the lower lobe was made out, but after six injections persistent fever came on, and infiltration of the lower lobe was diagnosed, which, at the necropsy, was found to be the case. Virchow goes on to advise that this treatment should not be performed on patients so debilitated as to be unable to cough up the increased sputum caused at first thereby, as he believes it is in such cases that previously healthy lung becomes infected by inspiration. Another important observation was that in some of these cases

he had found recent tubercles in unusual places—for instance, on the pericardium.

In weighing this evidence one must remember that these were mostly very advanced cases of tuberculosis in whom the treatment had been tried, and, although suspicious, any of these conditions may be met with in such advanced cases quite apart from the influence of tuberculin. Certainly, in the cases which died whilst under this treatment at Victoria Park Hospital no unusual condition was found *post mortem*. With the new tuberculin, I cannot find that so far any of these objections have been brought forward. The greatest objection at present appears to be its price, every full dose costing 17*s*., whilst the full dose of the old tuberculin now costs less than a penny. Various organisms have also been stated to have been found in this fluid, and abscesses are said to follow its use. I have myself, however, in some 500 injections never seen this occur.

For practical purposes there are two uses to which tuberculin has been applied, namely, curative and diagnostic.

We will firstly consider its curative properties. With regard to the old tuberculin, I have very little to say, as I have no personal experience of it; and, indeed, it is now but little used. Chosen cases, however, seem to have done better under this treatment than if treated otherwise; but this does not seem sufficiently marked to counterbalance the discomfort and possible risks attending it. Malcolm Morris, however, speaks very well of it in lupus, especially when combined with scraping, several cases which had recurred again and again after scraping alone healed up once and for all under this combined treatment. Soon after its introduction, Dr. Heron commenced this treatment at Victoria Park Hospital. The doses given ranged between 1 and 1000 mgrs. Thirty-seven patients were treated in this way; of these five were cases of lupus and thirty-two of pulmonary tuberculosis. Of these thirty-two cases about three quarters showed improvement; in the remaining quarter the disease remained unaltered or continued to progress. The improvement was shown by a gradual disappearance of cough and night-sweats, by increased freedom of breathing power, by gain in weight, and by a decrease both in the dry and moist sounds. The remaining five cases of lupus all showed improvement.

As regards any bad effects arising in these patients whilst under treatment. One patient suffering from lupus—in fact, the first case of lupus treated in England by this method—had a very severe reaction, preceded by severe rigors, nausea, and delirium. His treatment had been commenced with the large dose of 10 mgrs. After this much smaller initial doses were used, and no such severe reaction was again met with. One case developed pleurisy of the left side, with a moderate amount of effusion; and in another case a pneumothorax occurred two weeks after treatment. Both of these patients recovered from these conditions, which were probably quite independent of the tuberculin.

Dr. Heron has tried to trace these patients, to see whether the improvement gained was or was not permanent. He informs me that all the five cases of lupus have since relapsed. Of the remaining thirty-two cases of tuberculosis of the lung eight have died, ten are fairly well; of the other fourteen there is no trace.

We will now turn to the new tuberculin. To obtain good results with this the selection of suitable cases only is most important. The disease should be localised, and not too extensive, and the patient should not be in a very debilitated condition. Another most important point is that the disease should be apyretic, the temperature being seldom or never over 99·4° at night.

As regards the treatment itself, a four-hourly chart should be kept, and this started at least one week before the commencement of the injections. The material is obtained in small bottles, each containing 1 c.c. of fluid containing 10 mgrs. of T.R.

An initial dose of $\frac{1}{5\,0\,0}$ mgr. should be given. For these small doses it is necessary to make a dilution of the original fluid. To do this a 10 per cent. dilution is first prepared by withdrawing from the bottle with a pipette ·3 c.c. and mixing this with 2·7 c.c. of a 20 per cent. glycerine solution. From this 10 per cent. dilution a 1 in 1000 is readily made, and $\frac{2}{1\,0}$ c.c. of this therefore contains $\frac{1}{5\,0\,0}$ mgrs. of T R.

These manipulations must, of course, be carried out with strict aseptic precautions.

This solution keeps well for three or four days in a cool place. As soon as a slight cloudiness is seen in it it must be discarded.

If no reaction follow this initial injection of $\frac{1}{5\,0\,0}$ mgr. on the day next but one following, a second injection of double this amount, namely, $\frac{2}{5\,0\,0}$ mgr., should be given. This doubling of the dose in an injection given every other day should continue till a reaction occurs, when it will be found necessary to increase the dose less rapidly, or even to keep at the same for several injections. It is well to consider a rise of temperature to 100° as an indication that the dose should not be increased. When a dose of 2 mgr. is reached the fluid may be injected direct, without any dilution, till this has reached a maximum dose of 20 mgrs.—that is, two bottles full of this tuberculin.

For giving these injections I prefer myself the ordinary hypodermic syringe, with a metal piston, to the Koch's syringe usually used. This instrument must be thoroughly boiled before each injection. The area selected for injection is best cleansed by thoroughly rubbing with absolute alcohol.

As soon as this treatment with the new tuberculin was brought out it was commenced at Victoria Park Hospital by Dr. Heron, whom I wish to take this opportunity of thanking for allowing me to make use of his cases in this paper, and also for assisting me in other ways. The inoculations were performed by my former colleague, Mr. Emanuel, and myself.

Ten cases only were treated in this way, as it is necessarily of long duration and very expensive. Hardly one of these was a really favourable case for the treatment, as it is almost impossible in hospital practice to obtain such.

I will now refer briefly to these. E. B— was a girl of twenty-one years of age, who, on admission, was very anæmic and emaciated. The upper half of both lungs gave the physical signs of consolidation, and tubercle bacilli were present in her sputum. After having been ten days in hospital, injections of T.R. were commenced. The temperature remained unaffected until, after an injection of 1·125 mgrs., it suddenly rose to 105°. The patient felt cold, and afterwards for some hours suffered from severe headache. Some difficulty was experienced before tolerance to this dose could be acquired, and it was not till some five weeks later that the injections could be again increased. This point having, however, once been reached, the increase continued, with only one rise of temperature, to 102·6° after a dose of 10 mgrs., till treatment was completed. The final dose injected was 20 mgrs. This patient received a total of 353 mgrs. of T.R., contained in eighty-eight injections, the treatment lasting twenty-six weeks. Under this treatment cough, expectoration, and night sweats, which were present on admission, completely ceased. She gained 1 st. 10½ lbs. in weight, was no longer anæmic, and her catamenia, which had been absent for many months, returned. The physical signs also greatly improved, only a few dry crepitations being audible at the left apex.

A week or two back I again had the opportunity of seeing this patient, and she looked and said she felt in perfectly good health. During the eighteen months since she had left the hospital she had had no return of cough or any of her old symptoms. On examining her chest, the expansion under the left clavicle was seen to be defective, the heart's apex was drawn up to the fourth interspace, the percussion note over the upper portion of the left lung was impaired, and a few dry, creaking sounds could here be heard; in fact, there was no sign of active disease, but only of fibrosed lung. Nothing else abnormal could be discovered. That hygienic conditions have taken no part in contributing to her recovery may be gathered from the fact that till quite recently she has been living in a small street in the east end of London, nursing her mother, who had just died of phthisis.

The next case I wish to draw your attention to I shall call L.W—. She was a girl, aged 24, who was admitted complaining of loss of appetite, weakness, night sweats, and slight cough in the morning. She gave a history of a definite hæmoptysis on four occasions. Although somewhat obese on admittance, she stated that she had lost two stone during the last six months. This history with some doubtful crepitations at the left apex, and the fact that her temperature reacted to such small doses of tuberculin as 1·25 mgrs., were the only evidence that this patient was suffering from phthisis. She had no expectoration, so tubercle bacilli could not be found. She received a total injection of 106·5 mgrs., commencing with $\frac{1}{4\,0\,0}$ mgr., and going up to 5 mgrs. In all forty-eight injections were given, extending over a period of fifteen weeks. She left the hospital apparently in perfect health, and having gained seven pounds in weight. This patient has been in service since leaving the hospital, and has remained quite well up to the present time.

G. O—, was a man aged 43, with well-marked disease of both lungs. His treatment lasted twenty weeks, during which time he received 90 mgrs. in 67 injections. Immunity to the virus was so slow in being established that he had by this time only reached a a dose of 6·5 mgrs. The treatment had then to be stopped on account of the want of funds of the hospital. He had, however, under this treatment, already much improved, his cough, expectoration, and night sweats having markedly decreased. The physical signs however, except for a decrease in crepitations, showed no very great improvement.

Since leaving the hospital this improvement has until recently persisted, but I hear that he has now again a return of his old symptoms.

A. M—, was a very advanced case of phthisis, with great cavitation of both lungs; this treatment was tried on him as a last resource. Shortly after treatment had commenced he had a hæmoptysis, lasting about four days, of about twenty ounces of blood in all. Whether or not this was caused by the local congestion tuberculin undoubtedly produces it is impossible to say, as he had a history of a former hæmoptysis. This, however, completely ceased, and the treatment was persisted in for six weeks. He, however, made no progress, but rather became worse, and finally died about ten days after treatment had ceased. At the *post mortem* very careful search was made to find out whether any dissemination of tubercle had taken place, but no sign of this or any other unusual condition was found.

E. G—, was a girl, aged 24, with advanced disease in both lungs. She was treated for about ten weeks, but made no real progress, so that the treatment was discontinued. She had a history of appendicitis, and whilst under this treatment a painful swelling occurred in the right iliac fossa, which may have been due to the lighting up, by the tuberculin, of activity in some ulcer in that situation.

I learn that she was later on operated upon, the appendix being removed, but the wound never healed, and she finally died in March, 1898. At the *post mortem* advanced disease of the lung was present, and some slight tuberculous ulceration of the cæcum.

The remaining four cases of phthisis all left the hospital before the treatment had in any way neared completion, and although treated for eight or nine months they still reacted to such small doses as 2 or 3 mgrs. They mostly showed improvement, but not more so than patients treated by other means.

The case of lupus was a man aged 27, who came to the hospital with the history that the condition commenced three months previously with a small pimple on the left nostril. At the time of admission the disease involved both nostrils, there being also a round nodule about the size of a sixpence on the upper lip, and another about the same size on the cheek, three quarters of an inch in front of the lobe of the right ear.

Under this treatment the condition began to heal, and in about eleven weeks the scabs had separated, and scar tissue only was seen over the sites of the lupus patches, except that on the lip, and this had healed entirely sixteen days later.

There has been a good deal of doubt felt as to whether this was after all a case of lupus, and not one of syphilis.

In favour of the latter the man had a history of gonorrhœa, followed by sore throat, and had one or two brownish stains on his shins. For one week also during his treatment with tuberculin he also received five grains of potassium iodide, as he had set up a little periostitis by knocking his shin against the sharp edge of a chair. On the other hand, in favour of lupus, he stated that he had never had any previous shin disease. Also under the tuberculin, not only did the scabs tend to separate and fall off the lupus patches, and the ulcers thus left cicatrise, but a general reaction was also set up, his temperature, for instance, rising to 102° with so small a dose as 1 mgr. With regard to the potassium iodide, this was not given till July 5th, by which time the whole disease, except the patch on the lip, had healed.

I hear that there has been no recurrence in this case up to the present time.

Whilst house surgeon at this hospital, I treated one patient only by this means. He was a boy with very chronic and extensive cutaneous ulceration about the face, which had in parts led to great contraction. He had also extensive ulceration of the soft palate and chronic inflammation of both knee-joints. For some months he had been treated with anti-syphilitic remedies, but as these had no effect, it was thought the condition might be, in part at least, tuberculous. He was treated with T.R. for four weeks, and reached a dose of 3 mgrs., but as his condition showed no improvement whatever, and as he complained a good deal of headache, it was discontinued.

In reviewing these cases you will see, gentlemen, that my experience of T.R. has not been very encouraging. Excluding the possible case of lupus, in only two others can the treatment be considered to have been carried to completion, that is, until no reaction followed large doses, and these are the only two who are known to be still quite well. On the other hand, I think the treatment must be considered to have had a fair trial in the other cases, as in all of them it was persisted in for many weeks.

Finally, there remains the diagnostic properties of tuberculin to be considered. The old tuberculin has, on the recommendation of Koch, been the only one used for this purpose, the reaction to it being far more definite than to T.R. Again, it has been far more widely used in veterinary than in medical practice, and in the former the results are most satisfactory. Immense numbers of cattle have now been tested in this way, and of these large numbers, both of reacting and non-reacting animals, have been slaughtered and examined. A correct diagnosis by this means has been proved to be given in over 99 per cent. This alone is a most important use of tuberculin, when the large number of cattle which suffer from tuberculosis is remembered, and also the fact, which I believe is now admitted, that tuberculous enteritis of infants is practically always due to milk from tuberculous cows. In connection with this, an amusing story appeared in the *British Medical Journal* a week or two ago, where a farmer refused to sell a tuberculous cow at any price, as he said, "it ate so little and gave such quantities of milk." It appears true that the milk in tuberculous cows is not diminished, and farmers are therefore not very ready to have them slaughtered. Legislation in various countries abroad is in force to ensure the testing of animals in this way, and now in England steps are beginning to be taken with the object, at any rate, of encouraging farmers to use this test, and so separate the healthy from the unhealthy animals. In certain towns dairies have been instituted, the milk from which is guaranteed to come only from cows which do not react to this test, and it is important for the physician to have some idea as to the value of such institutions.

In man the results do not, so far, appear to be quite so satisfactory.

I have collected 1000 cases thus tested from various sources, without any regard as to whom the operator was, or the result obtained. I find I thus have 634 cases of undoubted tuberculosis, and 366 cases in whom no clinical evidence of tubercle was present. Of these 634 cases of undoubted tuberculosis, 609 reacted, there being thus 25 failures, or rather less than 4 per cent.

Of the 366 cases in whom there was no clinical evidence of tubercle, 306 did not react and 70 reacted; that is about 19 per cent. of failures. The total percentage of failures in the 1000 cases is thus seen to be 9·5.

This compares very unfavourably with the less than 1 per cent. of failures in cattle, and the point to be decided is whether the tuberculin itself or its method of administration is at fault. In the first place the matter of dosage is a most important one. A maximum dose of 2 or 3 mgrs. appears to be quite inadequate, as some cases of undoubted tuberculosis fail to react to this dose, though they give definite reactions to somewhat higher ones. Drs. Martin and Robins, of Montreal, for instance, record three cases out of twenty-four tuberculous ones who failed to react to this dose. None of their thirty non-tuberculous patients reacted.

On the other hand, 10 mgrs. seems too large. In support of this I may quote Dr. Franklin White's cases; he had no failures with his forty-five tuberculous patients, but thirteen out of seventy non-tubercular patients also reacted. It is seen, therefore, that with a maximum dose of 3 mgrs., the failure lies in the fact that some of the tuberculous cases do not react, whilst on the other hand, with a dose of 10 mgrs. it is that some of the non-tuberculous also react.

Secondly, some of these failures, I think, have been caused by working up to the maximum dose with two or more smaller doses. This certainly provides against one of those severe reactions which sometimes occur when a large initial dose is given, but, on the other hand, the opposite extreme may be reached, immunity being established to the maximum dose, and thus no reaction following.

Other sources of fallacy are, that in tuberculous patients with pyrexia the test is untrustworthy, and again in those exhausted by protracted disease a reaction may fail to occur. Lastly, the tuberculin, although standardised by finding the amount that will kill a certain weight of tuberculous guinea-pig in a definite time, is not always of exactly the same strength.

In none of the above 1000 cases have I found reported any dissemination of tubercle or other serious effect following its application.

I think, therefore, that this test is of use in an apyretic case, not greatly exhausted, if the dose be kept within the limits mentioned. I would suggest that 1 mgr. be first injected to guard against any severe reaction due to special susceptibility to this drug, and if no reaction follow, on the day next but one following a dose of 7 mgrs. be injected, a reaction to this to count as positive, no reaction as negative.

The conclusions I think we may draw from the foregoing are:

Firstly, that T.R. is harmless, and probably beneficial in the treatment of certain selected cases of tuberculosis, but its expense and the inconvenience to the patient are at present against its more

extensive use. There is, however, reason to hope that some material, on this basis, may yet be obtained for the treatment of tuberculosis.

Secondly, tuberculin as a diagnostic agent in cattle has already proved of undoubted use, and by this means tuberculosis in cattle, even if it cannot be stamped out, may yet be kept well within bounds.

Thirdly, in man, now that more experience has been obtained, and the fear of tuberculin to a great extent diminished, I think it will prove a valuable aid to the diagnosis of this disease in the early stages, when diagnosis is of such extreme importance to the patient.

With the V.M.S.C. at Aldershot.

A VOLUNTEER'S DIARY.

JULY 1st. — I am rudely aroused by an energetic hammering on my bedroom door, and am informed that it is 9 o'clock. I feel extremely comfortable and disinclined to get up, so I lie still and think over what is to be done to-day. The vacation has started, and there is no necessity to put in an appearance at the Hospital; and, what is more to the point, this is the day on which the Volunteer Medical Staff Corps proceeds to Aldershot for a week's camping out under canvas. My meditations appear to have ceased here, for the next thing I remember is being ordered to turn out, as I am delaying the work of the household by not having my bed made. It is half-past ten; there is plenty to be done, so I deem it advisable to get up and set about it. Having duly washed and breakfasted, I commence the task of cleaning up my war equipment—polishing helmet, pipe-claying belt, &c. I have a method of doing this which, I think, possesses some advantages, although I will not vouch for its originality. I just collect all the polishing and cleaning apparatus I can find into one spot (preferably the drawing-room), and, with a pot of pipe-clay and some water, sit down in the middle and proceed to operate. The chances are that very soon I am swooped down upon by an irate parent, attended by a body-guard in the shape of a domestic or charwoman, who take the job out of my hands very completely, in order that I shall not make any more mess and spoil the carpet with pipe-clay—so they say. They really manage to clean those things quite well, too, considering that they have not had any training at it. This being satisfactorily arranged, I have time to think of more personal matters. I want shaving very badly; it would not do to turn up on parade with three days' growth. But then I realise that my shaving-tackle is in my kit-bag, and miles away up at head-quarters. This is indeed an oversight; but I must exhibit my soldierly instincts and make the best of a bad job, so I interview a local barber. It's over now, but I am afraid my soldierly instincts are leading me into considerable danger.

I start to don my uniform, and realise in the very beginning that I am but a recruit after all. For a display of complicated gymnastic exercises, my putting on of the war-paint, I fancy, would be hard to beat. The haversack is intended to be worn on the left hip; mine persistently turns up on the right side of my chest, the water-bottle strap gets round my neck somehow, and the bottle itself dangles down in the small of my back. I give the strap a vicious tug in front, the only result being that the hard, wooden, iron-bound bottle comes up and impinges on my external occipital protuberance. In despair, I consult a book supplied for our guidance, and try to follow a diagram which it contains. Worse and worse! My sword gets on my right side, haversack round my neck, and my water-bottle jammed tightly up under my left armpit. I get furious at this, and fight my way clear of the beastly things.

To my surprise, my maternal parent makes one or two suggestions about putting on field equipment, which seem to come off. I wonder if my late governor had anything to do with volunteering. Perhaps my soldierly instincts are hereditary; be that as it may, with the assistance I have mentioned, my war-paint appears to fall into its right place in a magical manner, and I admire my martial aspect with great complacency, till reminded that I have three quarters of an hour to go a journey usually occupying one hour.

4.45 p.m.—I have reached Waterloo Station in time, but it's a record. I think regretfully of those cab fares I was forced to pay; but the fact that I was addressed as "captain" by a newspaper boy, whilst in a hansom opposite the Bank, rather consoled me.

The fellows are parading in force, and being considerably smartened up by their non-commissioned officers as regards their dress; and I must say it is necessary, *e. g.* it rather spoils the look of a line when one or two helmets are put on with the back to the front. It seems to interfere with the wearer's power of utterance, and does not give one a very good view of his face. About the wearing of overcoats, too, there appeared to be some difference of opinion. Some said they were to be rolled and worn over the right shoulder, others over the left; and men lost their temper about it, and called each other names. However, we receive the order to entrain at last, and all differences cease; in fact, everybody becomes quite friendly. With eight able-bodied men in a compartment, just released from work and off for a holiday, pipes glowing, chaff flying about, good humour the order of the day — it is impossible to be low-spirited. And thus we move out of London, away from the smoke and worry of everyday life down to the country where England's army exercise and train for the defence of our island home.

7 p.m., Aldershot.—We march out of the town to the strains of "Washington Post," the men looking very smart in their blue uniforms and clean white belts. I hear one or two favourable criticisms on our appearance as we pass along the streets, and feel quite proud that I am a volunteer. I say nothing of a few other little remarks, which, of course, I ignored, as coming from spectators with bad taste. We pass several military camps by the roadside after leaving the town, the white tents and free-and-easy costumes of the men off duty looking very picturesque in the summer evening light.

We reach our own camp at last, which we find pitched in a sweetly pretty spot on a small common, and surrounded by a circle of thick woods.

The camp is pitched ready for us, our advanced guard having come down three days ago for that purpose. Our advanced guard! I looked out for them, but for a time could see no one whom I recognised. I inquire what has become of them, and my attention is directed towards a group of ruffianly-looking men in cricketing flannels, and with faces as black as Kaffirs. The sun seems to have been powerful in these regions since Wednesday. The ruffianly-looking men give us a cheer as we march in; and, on closer inspection, they do indeed turn out to be our own friends.

Told off to our tents, blankets and macintosh sheets appear from somewhere; and, what is better, the hot rations for our evening meal. The cool evening air has created a big appetite on every one, presumably; for the way the supper disappears is truly bewildering.

My next experience is making my bed. I find it mighty difficult; in fact, I had to call in the help of a good Samaritan who had camped last year, or I never would have mastered the intricacies of the operation.

I am dead tired when at last I can undress and lie down in my newly-made bed.

Another experience—sleeping on the ground. How hard it seems! The earth feels as though it is trying to flatten out certain prominent points on my body; my left hip seems much too large, the point of my shoulder, I feel certain, will be bruised in the morning. But gradually these discomforts get less and less, and I sleep the sleep of the weary.

Sunday, 31st.—A pattering over my head rouses me up; it is rain on the canvas. The other fellows are snoring in harmony, so I add a little whistling melody of my own composition just by way of a treat. For the next ten minutes an onlooker would have given me up for lost, and would have judged me a hopeless criminal if he went by what my bedfellows said of me.

Breakfast is partaken under cover of canvas, for the rain comes down steadily. But what do we care for rain? Are we not volunteers, with healthy appetites, sworn to good fellowship, and to take the rough with the smooth? Besides, in this *al fresco* mode of living there is much to laugh at; so, when A— upsets his cup of hot coffee down his leg and into his boot, and B— sits over the edge of an inverted pail and sends his sardines shooting up into the tent-ventilator, and C—, in trying to jump to his feet to salute the orderly officer, puts his foot in the butter and uses language about it, the condition of the weather is quite overlooked in the general merriment that prevails.

Breakfast being over, and the rain still coming down, we lounge on our folded blankets very much at our ease, and smoke the convivial and sociable pipe. London seems far away, the dissecting-room and Phys. Lab. things of the past, and we are becoming "Soldiers of the Queen."

The rain has ceased, and we are ordered to parade for service. This, I find, is a drum-head service, where the big drum is used for a pulpit, and we are formed up in hollow-square around it. During the singing of a hymn my attention is attracted towards my next-door neighbour. His vocal powers are very fine, and I am lost in admiration. So, it appears, is a particularly fiery wasp, who is drawn nearer and nearer by my friend's melody. His nose offers an inviting perch. The invitation is accepted, the melody ceases abruptly, and for the

rest of the service my friend's remarks on wasps are very strongly delivered and to the point, although compelled to utter them in a suppressed voice.

Dinner is the next event, and again I marvel at the keenness of the Aldershot appetite. The afternoon passes off very pleasantly. The weather is now fine and sunny, so we are not confined to our tents. After tea there is a reunion of Bart.'s men in the tents of the transport section; the proceedings are very lively, and go on until a staff-sergeant appears and puts a stop to them, with the remark that the music is not of a devotional character.

8.30 p.m.—I begin to prepare for guard-house duty; overcoat, forage cap, leggings, belt, and sword are duly put on with some difficulty, to the satisfaction of the orderly officer. It is quite dark when I go on sentry duty; it is somewhat lonely. I can hear the fellows inside the lighted tents talking and laughing, and wish I could creep into mine. The wind blows somewhat chilly, too, so I keep perseveringly on the move.

Ten o'clock strikes; a distant gun is heard, and then there arises from all around our little common, beyond the dark circle of woods, the singing of innumerable bugles. From camp after camp goes up the shrill "tattoo," until the night air seems full of weird sound. Louder and louder it swells with greater volume, and then dies gradually away, one or two bugle calls lingering after the others, till at last they cease, and a silence succeeds almost oppressive. I can now hear the order in camp, "Lights out," and one by one the little lighted cones become dark, the voices of their inmates get fewer and fewer, and I am left more lonely than before.

Tramp, tramp! At last I am really a soldier, and a sentinel responsible for the safety of others, watching whilst they sleep. I have counted the steps it takes me to get from one end of my beat to the other; I have tried to count the stars. I must not whistle or smoke. Oh, for something to break this monotony! Hullo, here it is. "Halt! who comes there?" No answer. I try again, with the same result. I must investigate. I thank my stars that I am by myself, or I should have never heard the last of it. What I had been challenging so industriously was a hawker's donkey, which had strayed on to the common, and was quietly cropping the grass near my beat.

I am a trifle humble after this. Previously I had rather prided myself on the military way in which I challenged and passed the late-comers into camp. As I before said, I am a sentry with some responsibility and authority, like the policeman in town who holds up his hand and stops the traffic; so I can stop any man approaching my beat, from the colonel downwards, and make him give an account of himself.

What a thing authority is! When I was at school I was made a prefect, and grew several inches in a day. Put a man into a coat with one or two stripes on the arm, and he assumes unbounded dignity. Why, I once knew a man who——

"Halt! who comes there?" "Relief." That's a blessing, and very welcome to a weary sentry. I go off duty for four hours, but must not undress; so I lie down in the guard-tent and try to get a little much-needed sleep.

J. J. S. S.

(To be continued.)

Notes.

The event of the month in the medical world is undoubtedly the election of our Senior Physician, Dr. W. S. Church, as President of the Royal College of Physicians. All Bart.'s men will be delighted that the high position which Dr. Church has always held in the esteem of the profession has thus received public recognition. The Journal of the hospital for which he has done so much, and with which he has been so long associated, may fittingly join in the chorus of congratulation to Dr. Church.

* * *

The last Bart.'s man who occupied the Presidential chair of the College was Sir George Burrows, who was elected in 1871, and continued in office till 1876. His successor, Sir Risdon Bennett, was the first to break through the tradition that the President should be a member of one of the older universities. The precedent established has been followed in each subsequent election,—Sir William Jenner, Sir Andrew Clark, Sir Russell Reynolds, and Sir Samuel Wilks. With a return to a Bart.'s president there is a return to the older tradition, for Dr. Church is an M.D. of Oxford.

* * *

Dr. Horton-Smith has been appointed Assistant Physician to the Hospital for Consumption, Bromptom.

* * *

The next meeting of the Rahere Lodge will be held at Frascati's, on Tuesday, May 9th.

* * *

The Annual View Day is fixed for Wednesday, May 10th.

* * *

We regret to have to announce the death of G. F. Reynalds, L.R.C.P., M.R.C.S., who succumbed to an attack of blackwater fever on Ash Wednesday. Mr. Reynalds was acting as medical officer to the Taynah and Abosso Gold Mines on the West Coast of Africa—an appointment he had held since September, 1897.

* * *

The Kirkes Scholarship and Gold Medal in Clinical Medicine has been awarded to C. J. Thomas.

* * *

The Senior Scholarship in Anatomy, Physiology, and Chemistry has been awarded to F. Gröne.

* * *

The Junior Scholarships in Anatomy and Biology have been awarded to A. Hamilton, T. H. Harker, and C. C. Robinson, æq.

* * *

The Harvey Prize in Practical Physiology has been awarded to N. E. Waterfield, H. N. Kidner *proxime accessit.*

* * *

The Treasurer's Prize in Practical Anatomy has been awarded to C. C. Robinson.

* * *

The Foster Prize in Practical Anatomy has been awarded to N. E. Waterfield.

* * *

The Hichens Prize for an examination on *Butler's Analogy* has been awarded to S. G. Mostyn.

* * *

The current number of *The Practitioner* takes the form of a "Special Cancer Number," on the lines of the successful "Special Tuberculosis Number" issued last year. We commend it to such of our readers as are seeking a conveniently concise and up-to-date review of our knowledge on the subject. Mr. D'Arcy Power contributes a section dealing with "The Local Distribution of Cancer and Cancer Houses." Mr. Plimmer's chapter on "Ætiology and Histology" contains some good illustrations of "Cancer Parasites."

Amalgamated Clubs.

CRICKET CLUB.

FIXTURES, 1899.—FIRST ELEVEN.

Date.	*Opponents.*	*Time.*	*Ground.*
Sat. May 6	Practice Game		Winchmore Hill
Wed. „ 10	Wanderers	11.30	Winchmore Hill
Sat. „ 13	M.C.C.	11.30	Winchmore Hill
Thur. „ 18	Crystal Palace	11.30	Crystal Palace
Sat. „ 20	Henley on Thames ...	11.30	Henley
Wed. „ 24	Beckenham.....	11.30	Beckenham
Sat. „ 27	Richmond	11.30	Richmond
Sat. June 3	Kensington Park	11.30	Winchmore Hill
Wed. „ 7	Hornsey	11.30	Hornsey
Sat. „ 10	Past *v.* Present	11.30	Winchmore Hill
„ „ 17	R.I.E.C.	11.30	Cooper's Hill
„ „ 24	Kensington	11.30	Wormwood Scrubbs
„ July 1	Addlestone	11.30	Addlestone
„ „ 8	Hampstead	11.30	Winchmore Hill
„ „ 15	Kensington Park	11.30	St. Quintin's Park
„ „ 22	Surbiton	11.30	Surbiton

SECOND ELEVEN.

Date.	*Opponents.*	*Time.*	*Ground.*
Sat. May 6	Practice Game		Winchmore Hill
Wed. „ 10	London Hospital 2nd..	2.30	Edmonton
Sat. „ 13	St. Mary's Hosp. 2nd	2.30	Winchmore Hill
Wed. „ 17			
Sat. „ 20	R.I.E.C. 2nd	11.30	Cooper's Hill
Wed. „ 24	Blackheath School ...	2.30	Blackheath
Sat. „ 27	Royal School of Mines	2.30	Winchmore Hill
Wed. „ 31	Banstead.....	11.30	Banstead
Sat. June 3	Guy's Hospital 2nd ...	2.30	Honor Oak Park
Wed. „ 7			
Sat. „ 10	Virginia Water	11.30	Virginia Water
Wed. „ 14	Claybury.....	11.30	Claybury
Sat. „ 17	Harringay	2.30	Winchmore Hill
Wed. „ 21	St. Mary's Hosp. 2nd	2.30	Winchmore Hill
Sat. „ 24	Maidenhead	11.30	Maidenhead
Wed. „ 28	Guy's Hospital	2.30	Winchmore Hill
Sat. July 1	Hospital Employés ...	2.30	Winchmore Hill
Wed. „ 5			
Sat. „ 8			
Wed. „ 12	Banstead	11.30	Banstead
Sat. „ 15	Blackheath School ...	2.30	Winchmore Hill
Wed. „ 19	St. Thomas' Hosp. 2nd	2.30	Chiswick Park
Sat. „ 22	Harringay	2.30	Winchmore Hill

Review.

ATLAS OF BACTERIOLOGY, containing 111 original photo-micrographs, with explanatory text, by CHAS. SLATER and EDMUND J. SPITTA. (London: Scientific Press, Limited, price 7s. 6d. nett.)

The first feeling aroused by this book is one of surprise at its extraordinary cheapness, considering the amount of work and the excellence of the plates. The scope of the atlas is indicated in the preface as follows: "It is hoped, on the one hand, that it may be a laboratory handbook to direct the attention of the student to the points which he should observe in his own preparations, at the same time helping the teacher by providing a series of grouped illustrations; whilst, on the other hand, it is thought it may find a place in the library of the Medical Officer of Health and other practitioners as an atlas to which on certain occasions he *(sic)* may find it convenient to refer." Two of these reasons appear to us sound. It is not proposed to replace the examination of actual specimens by the student; nothing can do that satisfactorily; but as a guide to the study of his own preparations it may be of great value. Again, its usefulness to the teacher for illustrative purposes must be considerable. But we tremble to think of a Medical Officer of Health doing his work by the rule of thumb method here suggested; he should be a trained observer independent of such aids—if he is not there are plenty of men that are, who, it is to be hoped, will shortly replace him! A description of the photographic methods employed is added which should be of interest and of use to those essaying to work on similar lines. The binding and printing of the book leave nothing to be desired.

Lanthack Memorial Fund.

THE following additional subscriptions have been received towards this fund. Dr. J. H. Drysdale (25, Welbeck Street, W.), the Hon. Secretary, wishes us to state that it is proposed to close the list shortly; will those desirous of subscribing who have not yet done so please note this fact?

	£	s.	d.
H. P. Cholmeley, M.A., M.B.	1	1	0
J. S. Edkins, M.D. ...	5	5	0
W. E. Sargant, M.R.C.S., L.R.C.P.	1	1	0
T. R. Smith, F.R.C.S.	2	2	0
R. C. Ackland, M.R.C.S., L.R.C.P.	2	2	0
Wm. Osler, F.R.S., F.R.C.P.	10	10	0
Lord Lister	10	10	0
A. Willett, F.R.C.S.	10	10	0
Sir Richard Thorne-Thorne, K.C.B. ...	2	2	0
Stephen Paget, F.R.C.S.	1	1	0
John Fawcett, M.D....	1	1	0
C. H. Cosens, M.R.C.S., L.R.C.P.	5	5	0
J. R. Leeson, M.D. ...	1	1	0
James Calvert, M.D.	5	5	0
G. C. Garratt, M.B....	3	3	0
R. A. Walter, M.R.C.S., L.R.C.P.	2	2	0
J. D. Rawlings, M.B.	2	2	0
W. Black Jones, M.D.	1	1	0
J. Ackery, M.R.C.S.	3	3	0
A. Latham, M.B.	10	10	0
Mrs. Unwin	5	0	0
A. B. Green, M.B. ...	5	0	0
G. Walker, M.D.	1	1	0
H. S. Wellcome, Esq.	5	5	0
C. F. Marshall, M.D.	1	1	0
E. Clifford Beale, M.D.	3	3	0
T. P. Legg, M.B.	1	0	0
A. B. Rendel, M.B....	5	5	0
Anonymous	1	1	0
J. H. Churchill, M.R.C.S., L.R.C.P.	1	1	0
Claud Worth, M.R.C.S., L.R.C.P.	1	1	0
Ernest Clarke, F.R.C.S.	2	2	0
H J. Bumsted, M.B.	5	0	0
D. H. F. Cowin, M.R.C.S., L.R.C.P.	0	10	0
J. G. Forbes, M.B. ...	1	1	0
Albert Norman, L.R.C.P., L.R.C.S.	5	5	0
A. M. Mitchell, M.B.	2	2	0
H. H. Tooth, M.D. ...	5	5	0
A. Lyndon, M.D.	2	2	0
J. L. Maxwell, M.B....	1	1	0
R. A. Yeld, M.B. ...	0	10	0
T. G. A. Burns, M.R.C.S., L.R.C.P.	5	0	0
A. G. Penny, M.B. ...	1	1	0
E. C. Frend, M.R.C.S., L.R.C.P.	0	10	6
A. L. Ormerod, M.B.	1	1	0
E. W. Ormerod, M.B.	1	1	0
A. F. Stabb, M.D. ...	5	5	0
E. W. Brewerton, M.R.C.S., L.R.C.P.	2	2	0
Mabyn Read, M.D. ...	1	1	0
M. L. Hepburn, M.D.	1	1	0
J. Hobday, M.B.	1	1	0
R. Farrar, M.D.	1	1	0
W. J. Horne, M.B. ...	2	2	0
G. J. Briggs, M.R.C.S.	1	1	0
T. H. Molesworth, M.B.	1	1	0
P. Horton Smith, M.D.	2	2	0
F. W. Robertson, M.B.	1	1	0
F. Belben, M.B.....	2	2	0
C. Balfour Stewart, M.B.	5	5	0
Chas. Niell, M.B., B.C.	10	10	0
C. Addison, F.R.C.S.	2	2	0
W. B. Addison, M.B.	1	1	0
E. F. Trevelyan, M.D.	3	3	0
A. Cuddon-Fletcher	1	1	0
G. H. Sowry, M.B. ...	1	1	0
R. Sevestre, M.D. ...	2	2	0
E. W. G. Masterman	1	1	0
Miss Burrell	2	2	0
John Gutch, M.B.....	1	0	0
F. M. Burnett, M.D...	0	10	6
L. T. Giles, F.R.C.S.	1	1	0
H. B. Tait, F.R.C.S.	2	2	0
M. Armand Ruffer, M.D.	10	10	0
G. A. Crace-Calvert, M.B.	1	0	0
Mervyn Gordon, M.B.	2	2	0
S. West, M.D.	5	5	0
E. Cautley, M.D.....	5	5	0
Howard Marsh, F.R.C.S.	10	10	0
W. d'E. Emery, M.D.	2	2	0
J. C.	10	10	0
L. R. Baiss, M.R.C.S.	1	1	0
G. B. Nicholson, M.R.C.S.	1	1	0
R. A. Dunn, M.D. ...	1	1	0
E. J. Cave, M.D.	2	2	0
T. Austey-Chave, M.R.C.S.	2	2	0
A. P. Woollright	1	1	0
J. Nield Cook, M.D.	1	1	0
Lt.-Col. David Wilkie, I.M.S.....	2	2	0
Capt. F. P. Maynard, I.M.S.....	2	2	0
Volunteer M.S.C., per E.W.Miles, F.R.C.S.	4	18	2
Amount already acknowledged in JOURNAL	267	11	0
Total	£532	14	2

Junior Staff Appointments.

The following appointments have been made, dating from April 1st:

HOUSE PHYSICIAN TO—

	SENIOR.	JUNIOR.
Dr. Church.....	H. W. Henshaw, M.R.C.S., L.R.C.P.	E. H. Scholefield, B.A. (Oxon.), M.R.C.S., L.R.C.P.
Dr. Gee	J. H. Churchill, M.R.C.S., L.R.C.P.	C. S. Myers, B.A., M.B., B.C.(Cantab.), M.R.C.S. L.R.C.P.
Sir Dyce Duckworth ...	C. V. Knight, M.R.C.S., L.R.C.P.	E. C. Morland, M.B., B.Sc.(Lond.), M.R.C.S., L.R.C.P.
Dr. Hensley	...R. W. Jameson, M.R.C.S., L.R.C.P.	J. K. S. Fleming, M.R.C.S., L.R.C.P.
Dr. Brunton	...Clive Riviere, M.B.(Lond.), M.R.C.S., L.R.C.P.	H. A. Scholberg, M.B. (Lond.), M.R.C.S., L.R.C.P.

HOUSE SURGEON TO—

Mr. Willett.....	M. A. Cholmeley, M.R.C.S., L.R.C.P.	A. E. Carsberg, B.A. (Cantab.), M.R.C.S., L.R.C.P.
Mr. Langton ..	T. Litler-Jones, M.R.C.S., L.R.C.P.	F. K. Weaver, B.A. (Cantab.), M.R.C.S., L.R.C.P.
Mr. Marsh.....	C. G. Watson, M.R.C.S., L.R.C.P.	W. D. Harmer, M.A., M.B.(Cantab.), M.R.C.S., L.R.C.P.
Mr. Butlin.....	W. T. Rowe, M.R.C.S., L.R.C.P.	S. P. Pollard, B.A. (Cantab.), M.R.C.S., L.R.C.P.
Mr. Walsham...	P. Wood, M.R.C.S., L.R.C.P.	E. S. E. Hewer, M.R.C.S., L.R.C.P.

OPHTHALMIC HOUSE SURGEON:
R. A. Yeld, M.A., M.B., B.C.(Cantab.).

INTERN MIDWIFERY ASSISTANT:
J. L. MAXWELL, M.B., B.S.(Lond.), M.R.C.S., L.R.C.P.

EXTERN MIDWIFERY ASSISTANT:
S. Bousfield, B.A.(Cantab.), M.R.C.S., L.R.C.P.

RESIDENT ANÆSTHETISTS:
SENIOR.—A. Granville, M.R.C.S., L.R.C.P.
JUNIOR.—W. F. Cross, M.R.C.S., L.R.C.P.

H.S. (Co.) required.

IT WAS the voice of the porter—I heard him with pain—
No sooner to bed than I'm wanted again.
It's acutely malignant when tired out to hear—
"There's a case in the surgery waiting you, sir."
The day had been heavy and weary, and then
Two emergency "ops." in the theatre since ten;
And the sleep of exhaustion was easy to woo
As I staggered to bed at a quarter past two.
But relentless necessity gives one no rest,
And with muttered anathema soon I was dressed.
Yet it gave me a start, tho' I'd no time to pause,
When I noticed my jacket was cyanide gauze.
Still, I waived all objections to texture and tint,
Though my boots were of strapping, my trousers of lint;
And adopting my medical manner with pride,
I hurried downstairs with a long spastic stride.
Now I'm bound to admit I was filled with amaze
At the horrible sight that encountered my gaze;
On the couch in the back room was seated a beast
(He defied any other description at least).
But the look of his face—like one hunted and wronged—
Proved the Cœlomate group unto which he belonged.
With the wrath of a night-dresser roused from his lair,
I asked automatically why he was there.
With harsh borborygmi he answered and said—
"Oh, doctor, I really do wish I was dead,
I'm all of a tremble whatever I do;
I heard of your fame so I come to see you."
His clothes were all shabby, ragged, and torn,
His "general condition" wretched, forlorn.
But what pleased me most—"which I blush to relate"—
Was his hopeless, malformed, incurable state.
He'd a large fissured fracture from vertex to base,
And lupus vulgaris emblazoned his face;
Impetiginous eczema matted his hair,
And his eye had a wicked protuberant stare.
I told him to strip, and beheld with surprise
The horrible sight that then greeted my eyes;
His chest was transparent, 'twas evident quite
No commonplace case was before me that night.
His sternum was bifid, the organs transposed,
His neural canal had not properly closed.
His lungs, all cavernous, gave physical signs
Of splendidly typical bruits d'airain(s).
On his body were ulcers that never would heal,
He'd a painful untappable hæmatocele.
There were pulsating growths all over his head,
And his fœtal lanugo but partially shed.
Carcinomatous nodules embellished his skin,
His hand was a retrograde pectoral fin.
He'd a Nægele pelvis, the palsy of Bell,
His ductus venosus was patent as well.
He'd a double aorta—kyphosis and tic,
And pediculi crawling all over him thick.
His joints were distended the size of your head,
He'd classical symptoms of poisoning by lead;
He'd a Harrison's sulcus, a rickety chest,
(The "strumous diathesis" also I guessed).
He'd pleuritic effusion added to these,
With peritonitis and Hodgkin's disease.
To sum up the list of his sufferings and woes,
He'd œdematous legs and gangrenous toes.

His case was unique, and a puzzle to me,
So I sent the night porter to fetch the H.P.,
Who quickly appeared, and together we tried—
Infusions, tobacco, potassium bromide,
Thyroid extract, hot bottles, and hospital "phizz,"
Till the whole of the surgery seemed in a whizz.

But the jeers grew very loud from the fastly gath'ring crowd
Of nurses and of porters all around,
And I felt a sense of wrong from the carping of the throng,
For students they were thick upon the ground.
And one said, "Give him beer, just his dying thoughts to cheer,"
And some said, "Give him brandy," "Give him gin;"
But I turned him upside down, his awful groans to drown,
And pricked him well all over with a pin.
The Warden standing by tried the reflex of his eye,
And he said, "It's no good doing any more;
I much object to force, but as a last resource,
We'll roll him sideways up and down the floor."

Now the crowd had disappeared with a silence that was weird,
And the darkness made it difficult to see;
But I thought of all the cases I had seen in different places,
And I put an aspirator in his knee.
The man was sinking fast, and I knew he couldn't last,
So I shook him very roughly though he bled;
But he caught me such a crack that he laid me on my back,
And I woke to find I'd tumbled out of bed.

* * *

And the waiter's raucous tones were the dying patient's groans,
And the London sun was struggling hard to shine;
And the man politely said, as I scrambled back to bed,
"Good morning, sir; it's just gone half-past nine."

Correspondence.

To the Editor of the St. Bartholomew's Hospital Journal.

DEAR SIR,—May I be permitted to point out the illogical *non sequitur* in "Abernethian's" letter? He says that, since the average attendance at the Abernethian meetings was 44, and the votes recorded 321, "those who are really interested in the Society can play little part in the choice of their own officers."

Surely it must be obvious to "Abernethian," from the mere fact of 44 being the *average*, that more members than that number attended meetings, since it is inconceivable to suppose the audience to consist of the same men each time; and also since (as a fact) the average attendance for four of the meetings was over 200.

It would be as reasonable for me to assume a perfectly different audience for every meeting, when, since there were twenty-one meetings, the attendance would come to 44 × 21—*i.e.* 924.

Yours, &c., ILLITERATE VOTER.

Appointments.

WARE, A. M., M.A.(Cantab.), M.R.C.S., L.R.C.P., appointed Assistant House Physician to the General Hospital, Birmingham.

* * *

BRICKWELL, F., M.B.(Lond.), M.R.C.S., L.R.C.P., appointed Junior Assistant Medical Officer to the Cumberland and Westmoreland Asylum.

* * *

VAUGHAN-PRYCE H., B.A.(Cantab.), M.R.C.S., L.R.C.P., appointed Junior House Surgeon to the Royal Hospital, Portsmouth.

* * *

PEARSON, M.G., M.B., B.Sc.(Lond.), F.R.C.S., appointed District Surgeon at De Aar, Cape Colony.

* * *

MANLOVE, J. E., M.R.C.S., L.R.C.P., appointed Resident Medical Officer at the Farringdon General Dispensary.

* * *

JORDAN, A. C., B.A., M.B., B.C.(Cantab.), appointed Fourth Resident Medical Officer to the Sussex County Hospital.

Births.

BOSWELL.—On March 13th, at Ashbourne, Derbyshire, the wife of Alexander Boswell, M.D., of a son.

HAMER.—On April 7th, at 73, Dartmouth Park Hill, N.W., the wife of W. H. Hamer, M.D., of a son.

HOGARTH.—On April 13th, at the Ropewalk, Nottingham, the wife of R. G. Hogarth, F.R.C.S., of a son.

Marriages.

BURNS—BAINES.—On April 8th, at Christ Church, Emery Down, Hants, by the Rev. E. F. Letts, Rector of Newton Heath, Manchester, cousin of the bridegroom, Theodore G. A. Burns, M.A.Oxon., M.R.C.S.Eng., 73, Wimpole Street, W., younger son of the late Gilbert Burns, of Knockmoran Lodge, co. Dublin, to Rosamund, third daughter of E. Talbot Baines, of Emery Down.

CROSS—BERGUER.—On the 5th April, at Holy Trinity Church, New Barnet, by the Rev. G. E. Gardner, Ernest William Cross, M.R.C.S.Eng., L.R.C.P.Lond., of Leytonstone, Essex, son of William Henry Cross, of St. Bartholomew's Hospital,, to Constance Mary, daughter of the late Rev. H. J. Berguer, of St. Philip's, Islington. No cards.

STEPHENS—BROWNE.—On February 14th, at St. George's Cathedral, Cape Town, by the Rev. W. Sarkley, Henry Woolcott, M.R.C.S., second son of the late Daniel Woolcott Stephens, of Woodford, Essex, to Margaret Mabel, third daughter of Joseph Laing Browne, of Cardiff.

Death.

REYNALDS, GEORGE FREDERICK, M.R.C.S., L.R.C.P., of 4, Normandville, Church Road, Teddington, almost suddenly, at Taynah, West Africa, on Wednesday, February 15th, aged 30.

ACKNOWLEDGMENTS.—*St. Thomas's Hospital Gazette, Charing Cross Hospital Gazette, Medical and Surgical Review of Reviews, The Stethoscope, Nursing Record, The Hospital, London Hospital Gazette, St. Mary's Hospital Gazette, Guy's Hospital Gazette, M.R.I.*